

## Patent Abstracts of Japan

PUBLICATION NUMBER : 09113598  
 PUBLICATION DATE : 02-05-97

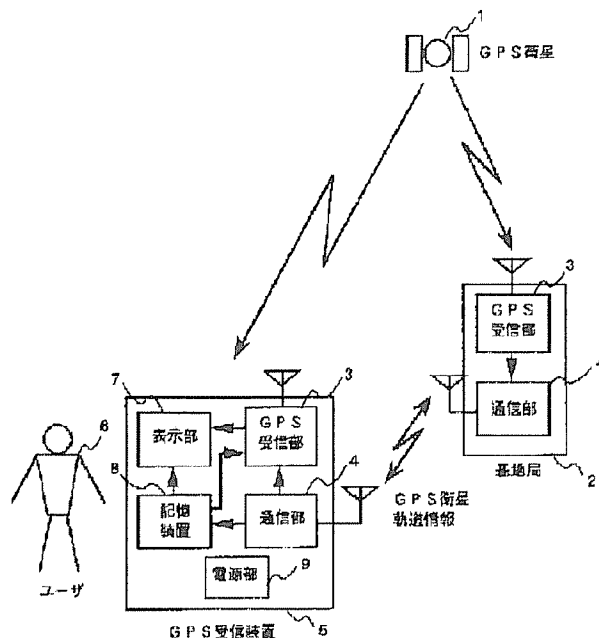
APPLICATION DATE : 20-10-95  
 APPLICATION NUMBER : 07272298

APPLICANT : HITACHI LTD;

INVENTOR : KURODA KOJI;

INT.CL. : G01S 5/14

TITLE : GPS POSITION MEASURING DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To set up a GPS receiving device in a short time and output the position measurement result even when the signals of a GPS satellite can be received only intermittently by using the GPS satellite orbit information transmitted from the outside.

SOLUTION: The radio waves from a GPS satellite 1 are received by the GPS reception section 3 of a base station 2, and the GPS orbit information is collected. The collected GPS orbit information is transmitted to a GPS receiving device 5 via a data communication means between a communication section 4 in the base station 2 and a communication section 4 in the GPS receiving device 5 and is stored in a storage device 8. If the reception synchronization of the radio waves from the GPS satellite 1 can be established when the GPS reception section 3 is set up, the distance and the distance change rate between the GPS satellite 1 and the receiving device 5 can be measured. The position and speed of the GPS satellite 1 can be calculated based on the measured data and the GPS satellite orbit information stored in the storage device 8 in a short time after the GPS reception section 3 is set up.

COPYRIGHT: (C)1997,JPO